

PERAC

COMMONWEALTH OF MASSACHUSETTS | PUBLIC EMPLOYEE RETIREMENT ADMINISTRATION COMMISSION

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JOSEPH E. CONNARTON, *Executive Director*

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MEMORANDUM

TO: Marlborough Retirement Board

FROM: Joseph E. Connarton, Executive Director

RE: Approval of Funding Schedule

DATE: December 5, 2017

This Commission is hereby furnishing you with approval of the revised funding schedule the Board recently adopted (copy enclosed). The schedule is effective in FY18 (since the amount under the prior schedule was maintained in FY18) and is acceptable under Chapter 32.

Although we are approving this schedule, we have reservations about the schedule. We expressed our concerns to the Director and the Board discussed these concerns at its most recent meeting. The Board decided to maintain the schedule. The issues we raised are documented below.

Our main concern is the significant decrease in the level of funding compared to the prior schedule. The revised schedule shows a decrease in the FY19 appropriation of approximately \$400,000. The FY20 amount decreases approximately \$440,000, the FY21 amount decreases approximately \$490,000, and subsequent years have even greater differences culminating in a \$660,000 decrease in FY24. Effectively, the revised schedule has decreased future appropriation levels by more than \$500,000 each year (approximately 6% per year) compared to the prior schedule. If PERAC were the actuary for your system, we would not have provided such a schedule for consideration. We have found over time that when the pension appropriation budget is reduced, it is usually difficult to reestablish higher amounts in the future, if necessary. Our strategy in developing funding schedule alternatives is to maintain the budgeted amount from the prior schedule as best we can by adjusting the amortization basis and/or period.

The valuation uses a salary increase assumption of 3.75%. Only 12 systems use an assumption of 3.75% or less. We expect that over the longer term, this assumption will need to be increased (and/or the investment return assumption further decreased) which will increase plan liabilities.

As part of this valuation, the Board adopted a revised fully generational mortality assumption based on a recent experience study performed by your actuary. The assumption used by your prior actuary in the 2015 valuation reflects the generational mortality assumption that PERAC adopted in 2015 for local systems. The 2015 assumption is based on our analysis of State retiree mortality and reflects longer life expectancy than the revised 2017 assumption. The valuation also reflects the adoption of other demographic assumptions based on the experience study. Most significant is the withdrawal assumption for Group 4 members which is much higher than the assumption used in the 2015 valuation and serves



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to decrease plan liabilities. We have not performed a recent experience analysis for local systems to compare our findings with the results of your actuary's study, although we plan to complete a study of retiree mortality for local systems over the next year. The revised assumptions are significantly less conservative than the current standard PERAC assumptions, which we continue to believe are reasonable.

The significance of the change in assumptions can be noted by comparing the actuarial liability between the 2015 and 2017 valuations. The actuarial liability of \$200.9 million as of January 1, 2017 is actually lower than it was as of January 1, 2015 (\$204.8 million). This is highly unusual. We typically expect the actuarial liability to increase 3% to 6% each year depending on the plan demographics. The employer normal cost has decreased almost 40% (from \$1.76 million to \$1.1 million) over the two-year period. These items illustrate the impact of the assumption changes.

Aside from the potential impact of plan provision or actuarial assumption changes, net losses with respect to any of these assumptions and/or investment losses in the 2019 or future valuations would increase plan liabilities, extend the period until reaching full funding, and might require larger future appropriations than the amounts shown on the attached schedule.

We are available to discuss these issues further. If you have any questions, please contact PERAC's Actuary, Jim Lamenzo, at (617) 666-4446, extension 921.

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Appropriation Forecast

Fiscal Year	Employee Contribution	Employer Normal Cost with Interest	Amortization Payments with Interest	Employer Total Cost with Interest	Employer Total Cost % of Payroll	Unfunded Liability	Funded Ratio %**
2018	\$2,860,197	\$1,140,749	\$7,305,254	\$8,446,003	25.9	\$46,775,335	76.7
2019	\$3,019,639	\$1,160,218	\$7,262,349	\$8,422,567	24.8	\$43,277,004	78.7
2020	\$3,187,639	\$1,179,129	\$7,589,154	\$8,768,283	24.7	\$38,993,016	81.3
2021	\$3,364,644	\$1,197,393	\$7,930,666	\$9,128,059	24.6	\$34,048,890	84.0
2022	\$3,551,124	\$1,214,913	\$8,287,546	\$9,502,459	24.5	\$28,379,868	87.0
2023	\$3,747,575	\$1,231,584	\$8,660,486	\$9,892,070	24.4	\$21,915,647	90.2
2024	\$3,954,514	\$1,247,296	\$9,050,208	\$10,297,504	24.3	\$14,579,938	93.6
2025	\$4,172,490	\$1,261,929	\$6,521,588	\$7,783,517	17.6	\$6,289,978	97.3
2026	\$4,402,076	\$1,275,352	\$0	\$1,275,352	2.8	(\$0)	100.0
2027	\$4,643,874	\$1,287,428	\$0	\$1,287,428	2.7	(\$0)	100.0
2028	\$4,898,521	\$1,298,008	\$0	\$1,298,008	2.6	(\$0)	100.0
2029	\$5,166,682	\$1,306,934	\$0	\$1,306,934	2.5	(\$0)	100.0
2030	\$5,449,058	\$1,314,034	\$0	\$1,314,034	2.4	(\$0)	100.0
2031	\$5,746,385	\$1,319,127	\$0	\$1,319,127	2.3	(\$0)	100.0
2032	\$6,059,438	\$1,322,017	\$0	\$1,322,017	2.2	(\$0)	100.0
2033	\$6,389,028	\$1,322,496	\$0	\$1,322,496	2.1	(\$0)	100.0
2034	\$6,736,012	\$1,320,341	\$0	\$1,320,341	2.0	(\$0)	100.0
2035	\$7,101,286	\$1,315,314	\$0	\$1,315,314	1.9	(\$0)	100.0
2036	\$7,485,794	\$1,307,161	\$0	\$1,307,161	1.8	(\$0)	100.0
2037	\$7,890,528	\$1,295,611	\$0	\$1,295,611	1.7	(\$0)	100.0
2038	\$8,245,602	\$1,353,913	\$0	\$1,353,913	1.7	(\$0)	100.0
2039	\$8,616,654	\$1,414,839	\$0	\$1,414,839	1.7	(\$0)	100.0
2040	\$9,004,403	\$1,478,507	\$0	\$1,478,507	1.7	(\$0)	100.0
2041	\$9,409,602	\$1,545,040	\$0	\$1,545,040	1.7	(\$0)	100.0
2042	\$9,833,034	\$1,614,567	\$0	\$1,614,567	1.7	(\$0)	100.0
2043	\$10,275,520	\$1,687,222	\$0	\$1,687,222	1.7	(\$0)	100.0
2044	\$10,737,919	\$1,763,147	\$0	\$1,763,147	1.7	(\$0)	100.0
2045	\$11,221,125	\$1,842,489	\$0	\$1,842,489	1.7	(\$0)	100.0
2046	\$11,726,076	\$1,925,401	\$0	\$1,925,401	1.7	(\$0)	100.0
2047	\$12,253,749	\$2,012,044	\$0	\$2,012,044	1.7	(\$0)	100.0
2048	\$12,805,168	\$2,102,586	\$0	\$2,102,586	1.7	(\$0)	100.0
2049	\$13,381,400	\$2,197,202	\$0	\$2,197,202	1.7	(\$0)	100.0

** Beginning of Fiscal Year